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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,472	09/16/2003	Motokazu Kobayashi	03500.017564	9615
5514	7590	05/05/2006		
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER LEE, EUGENE	
			ART UNIT 2815	PAPER NUMBER

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/662,472

Applicant(s)

KOBAYASHI ET AL.

Examiner

Eugene Lee

Art Unit

2815

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 April 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-5 and 11.
Claim(s) withdrawn from consideration: 6-10.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). 1/18/06
13. ☐ Other: _____

EUGENE LEE
PRIMARY EXAMINER



Continuation of 11. does NOT place the application in condition for allowance because: Regarding the limitation "wherein an interface between said lower electrode and/or said upper electrode and said piezoelectric film does not exist" and "wherein a region wherein crystals of said lower electrode and/or said upper electrode and crystals of said piezoelectric film are mixed", the applicant describes (see, for example, page 18, line 27 - page 19, lines 5-13 of the specification) that the disappearance of the interface is when the interface cannot be ascertained clearly. In column 12, lines 47-53, Izuha describes the lattice constant of the lower electrode 4 and the lattice constant of the dielectric thin film 5 were matched at the interface. Such matching makes it difficult to distinguish the boundary between each layer (i.e. the interface cannot be ascertained clearly) as described by Izuha in column 11, lines 45-49. Also, the applicant defines (see, for example, page 19, lines 10-13) an interface that cannot be ascertained clearly when the crystals in the electrode and crystals in the piezoelectric film are mixed exist in joint surfaces between the lower and upper electrodes and the piezoelectric film. This situation is clearly evident in Izuha wherein Izuha discloses (see, for example, FIG. 4A) the columnar grain A shared between the joint surfaces of the upper electrode 6, dielectric thin film 5, and lower electrode 4. This is clearly an example of a joint surface between the lower and upper electrodes and the piezoelectric film.

In FIG. 4A, Izuha clearly discloses a single columnar grain A (horizontally shaded portion) that runs across all three layers 4, 5, and 6. Clearly this is a mixing of crystals (due to the same lattice matching) between layers 4, 5, and 6. The applicant's argument on page 10, lines 5-8 that columnar grains A are actually a, b, and c, this argument is not persuasive because even though columnar grain A may be comprised of grains a, b, c, these grains (as shown in grain A) are still mixed (because of the same lattice constants), and therefore, disclose the applicant's limitations in claim 1.